County of Loudoun

Office of Transportation Services

MEMORANDUM

DATE: July 2, 2010

TO: Marchant Schneider, Project Manager
Department of Planning

FROM: Marc Lewis-DeGrace, Transportation Planner MLDG

SUBJECT: **SPEX 2010-0010**
Broad Run Contracting – Dulles Trade Center West Lot 12
First Referral

Background

This Special Exception (SPEX) application seeks approval to permit the storage of empty solid waste vehicles and containers. The subject site is 4.14 acres in size and is zoned Planned Development – General Industry (PD-GI). Access is proposed via a site driveway to the existing Trade West Drive. A vicinity map is provided as *Attachment 1*.

In its consideration of this application, the Office of Transportation Services (OTS) reviewed materials received from the Department of Planning on May 12, 2010, including (1) a statement of justification prepared by the Applicant, (2) a traffic assessment memo prepared by Gorove/Slade Associates, Inc., dated March 17, 2010, (3) a special exception plat (plan set) prepared by Dewberry & Davis, LLC dated February 2010, and (4) architectural renderings for the applicant's new facility prepared by Architectural Solutions revised through March 23, 2009.

Existing, Planned and Programmed Transportation Facilities

The site is located within the Suburban Policy Area (Dulles Community). Major roadways serving the site are described below. OTS review of existing and planned transportation facilities is based on the *2010 Revised Countywide Transportation Plan* (*2010 CTP*) and the *2003 Bicycle & Pedestrian Mobility Master Plan* (*2003 Bike & Ped Plan*).

Evergreen Mills Road (Route 621) (segment between Loudoun County Parkway (Route 606) and Belmont Ridge Road (Route 659) is classified by the *2010 CTP* as a major collector road; the road will be downgraded to a minor collector road once Route 621 Relocated is constructed. Evergreen Mills Road is currently built as a variable two-lane section (R2) within a variable right-of-way (ROW) but is planned to be widened to a four-lane undivided section (U4). According to the most recent data provided by VDOT, Evergreen Mills Road carries 11,000 vehicles per day.

The *2003 Bike & Ped Plan* classifies Evergreen Mills Road as "baseline connecting roadway" along which bicycle and pedestrian facilities are envisioned. Currently there are no bicycle/pedestrian facilities along this segment of Evergreen Mills Road.

Arcola Road (Route 842) is a two-lane (R2) local secondary road that connects Evergreen Mills Road to Loudoun County Parkway (Route 606). As a local road, Arcola Road is not part of the CTP network. According to the most recent data provided by VDOT, Arcola Road carries 340 vehicles per day. Per the *2010 CTP* Arcola Road is planned to become part of the future alignment of ***Arcola Boulevard.*** Arcola Boulevard is ultimately planned to be a six-lane divided (U6M) major collector and will connect existing Route 606 at Loudoun County Parkway with Route 50 opposite the West Spine Road.

The *2003 Bike & Ped Plan* classifies Arcola Road as "baseline connecting roadway" along which bicycle and pedestrian facilities are envisioned. Currently there are no bicycle/pedestrian facilities along this segment of Arcola Road.

Trade West Drive is a four-lane, undivided local access loop road that connects Evergreen Mills Road to Arcola Road. As a local road Trade West Drive is a local road is not part of the CTP network. Currently, the access to Arcola Road is not open to traffic. Currently there are no bicycle/pedestrian facilities along Trade West Drive.

Review of Submitted Traffic Assessment Memorandum

The Applicant's submitted traffic assessment memorandum (dated March 17, 2010) analyzed existing and future traffic volumes in the area, focusing on two existing intersections. These intersections are 1) the intersection of Evergreen Mills Road and Arcola Road and 2) the intersection of Evergreen Mills Road and Trade West Drive.

The traffic memo looked at the existing condition and two future scenarios; 1) future development without the proposed development; and 2) future development with the proposed development. Relevant portions of the study are summarized below.

Existing Traffic Volumes and Levels of Service (LOS)

At the direction of OTS staff, the existing peak hour turning movement traffic volumes were extracted from the "Dulles Trade Center West Lot 6 TIA (dated November 20, 2008). These turning movements were taken on February 20, 2008 at two locations; 1) Evergreen Mills Road and Arcola Road and 2) Evergreen Mills Road and Trade West Drive.

Under existing conditions all of the analyzed approaches operate at an acceptable Level of Service (LOS). (See table below and *Attachment 2*)

Existing Peak Hour Intersection Levels of Service

Intersection	Approach	AM Peak Hour		PM Peak Hour	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Evergreen Mills Road @ Arcola Road	Eastbound Left	0.8	A	4.1	A
	Southbound	21.8	C	16.7	C
	Overall	N/A	N/A	N/A	N/A
Evergreen Mills Road @ Trade West Drive	Eastbound Left	0.0	A	0.0	A
	Southbound	0.0	A	0.0	A
	Overall	N/A	N/A	N/A	N/A

Background Traffic Growth

At the direction of OTS staff, the future peak hour turning movement traffic volumes were extracted from the "Dulles Trade Center West Lot 6 TIA (dated November 20, 2008). These volumes included two approved developments (Arcola Center – The Shops and Dulles Landing) and Dulles Trade Center West – Lot 6. The traffic study also assumed a 4.04% growth rate of existing volumes applied on Evergreen Mills Road.

Trip Generation

This application is for storage of empty solid waste vehicles and containers on the subject property. There will be approximately 30 employees and 30 trucks serving this facility. The traffic memo provided a trip generation comparison between the approved flex-industrial use and the proposed storage facility. Since the Institute of Transportation Engineer's Trip Generation Manual (ITE 8th Ed.) does not provide trip generation rates for the proposed storage use, the traffic memo used the ITE Office rate to conservatively approximate the trip generation impacts of the 30 employees proposed on site. Further, the traffic memo conservatively assumed that 75% of the 30 trucks to be stored on the site would access the facility during peak hours. The truck traffic that would be generated by the proposed use was then added to the "office" trips to predict the total trips that would be generated by the proposed use.

Table 3: Trip Generation Comparison between Approved and Proposed Plan

Land Use	ITE Code	Size		Weekday AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily Total
APPROVED										
Flex Industrial										
Manufacturing	140	36.8	ksf	22	5	27	10	17	27	79
Office	710	35.3	ksf	49	6	55	10	43	53	390
Total		72.1	ksf	**71**	**11**	**82**	**20**	**60**	**80**	**469**
PROPOSED- Storage of Empty Solid Waste Containers and Vehicles										
Office	710	30.0	Employees	14	1	15	3	11	14	100
Truck Traffic*		30.0	Trucks	0	23	23	23	0	23	60
Total				**14**	**24**	**38**	**26**	**11**	**37**	**160**
Difference (Approved - Proposed)				***-57***	***13***	***-45***	***6***	***-49***	***-44***	***-309***

*Approximately 30 trucks will serve the facility. To be conservative, it was assumed that 75% of the truck traffic will enter or leave the facility during the peak hour

Source: Gorove/Slade Associates.

As shown in the table above, the resulting trip generation for the proposed use is lower than what would be generated under the approved use. The proposed use will generate 45 fewer AM peak hour trips, 44 fewer PM peak hour trips and 309 fewer daily trips than the approved use.

Trip Distribution

The trip distribution was extracted from the previously cited "Dulles Trade Center West Lot 6" TIA. Based on that study, it was assumed that 40% of the trips would travel to and from the west via Evergreen Mills Road, and 60% would travel to and from the east via Evergreen Mills Road.

Future Traffic Volumes and Levels of Service (LOS)

Under future conditions, with the proposed development in place, both of the studied intersections are forecast to operate at acceptable LOS. (See table below and *Attachment 3*).

Future Peak Hour Intersection Levels of Service

Intersection	Approach	AM Peak Hour		PM Peak Hour	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Evergreen Mills Road @ Arcola Road	Eastbound Left	0.9	A	4.3	A
	Southbound	26.1	D	18.9	C
	Overall	N/A	N/A	N/A	N/A
Evergreen Mills Road @ Trade West Drive	Eastbound Left	0.6	A	0.4	A
	Southbound	21.3	C	27.1	D
	Overall	N/A	N/A	N/A	N/A

Transportation Comment

1. The proposed use will not adversely impact the road network and thus road improvements are not requested with this application.

Conclusion

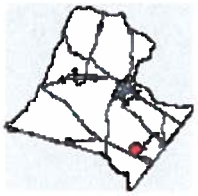
OTS has no objection to the approval of this application.

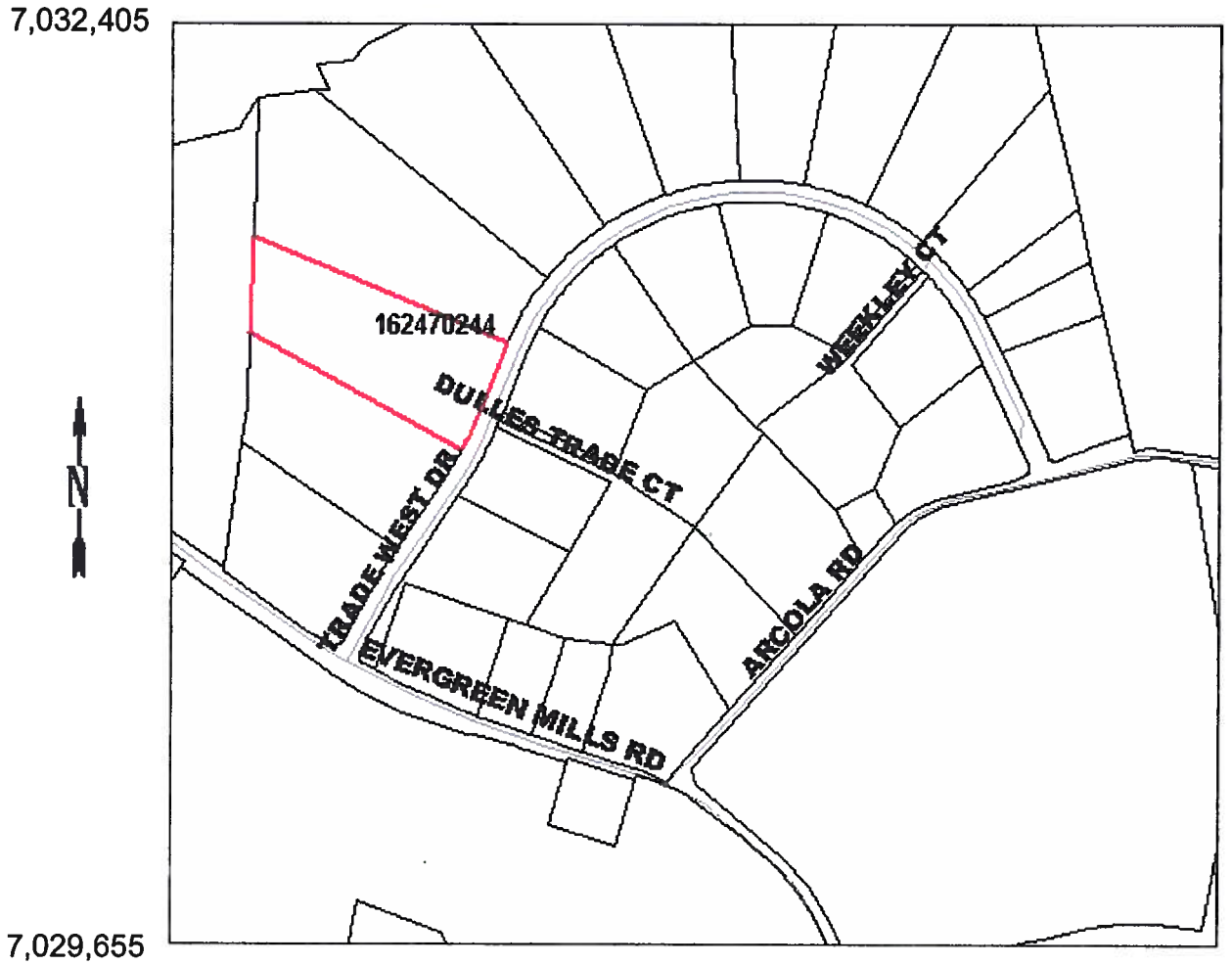
ATTACHMENTS

1. Site Vicinity Map
2. Existing Traffic Volumes and Level of Service
3. Future Traffic Volumes and Level of Service

cc: Andrew Beacher, Acting Director, OTS
Lou Mosurak, Senior Coordinator, OTS

Loudoun County Mapping System





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PIN	Address
162470244	

* General Parcel Information *
PIN: 162470244
Tax Map #: 101///7////12/
Parcel Address: Not Available
Owner Name: BROAD RUN CONTRACTING LLC
Primary Zoning: PDGI
GIS Parcel Type: P

ATTACHMENT 1

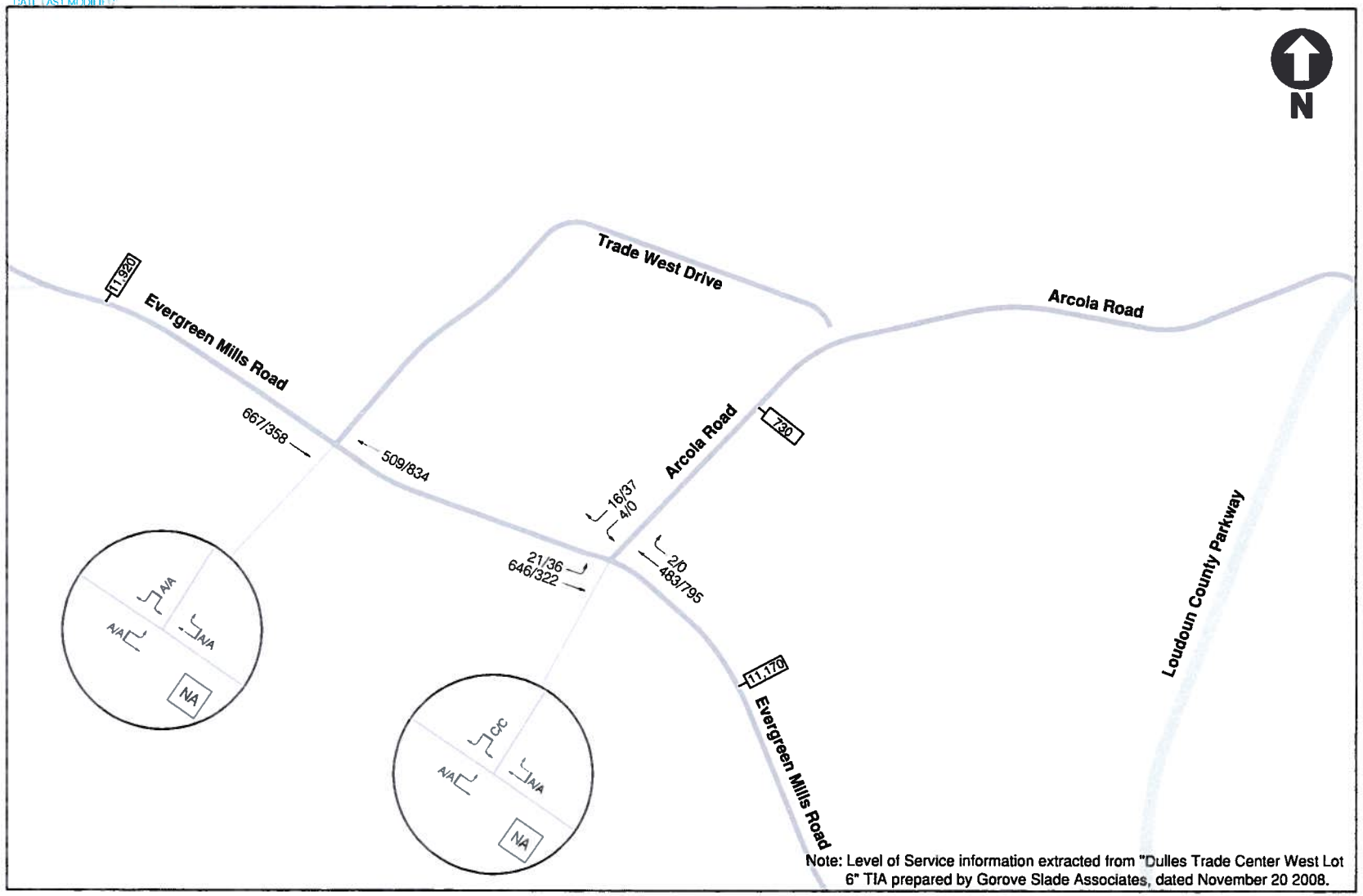

Figure 2
Existing Traffic Volumes and Level of Service (2008)

ATTACHMENT 2

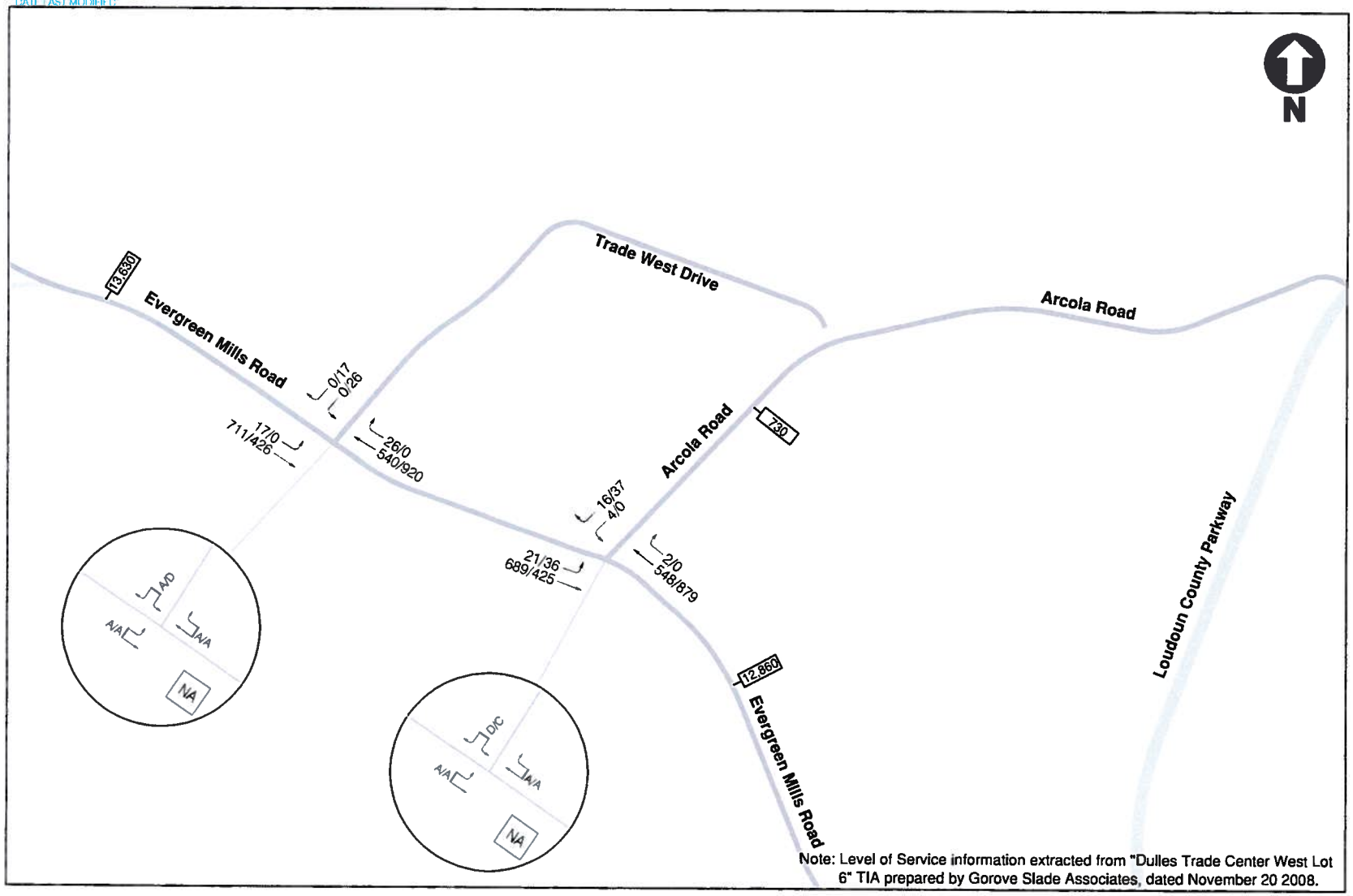

Figure 3
Future Traffic Volumes and Level of Service (2010)

Legend

- Existing Roadway Network
- AM/PM / AM/PM / AM/PM — Peak Hour Traffic Volumes
- N/A — Peak Hour Level of Service *(Overall Intersection)*
- AM/PM — Peak Hour Level of Service *(By Intersection Approach)*

ATTACHMENT 3